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RECENT SERIAL RELD
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Amber Sunglasses Enhance Foliage Color Discrimination

Farmers, nurserymen, foresters, botanists, and ecologists use subtle differences in foliage color to differentiate among species in forest stands and vegetation types in rural and urban landscapes, as well as to identify stressed or diseased plant foliage in farm fields and greenhouse operations.

Amber-lens sunglasses enhance visual differences among subtle shades of green and related hues in foliage. When I tested the glasses it was easier to:

- Differentiate among many species in the canopies of mixed hardwood and mixed hardwood-pine forests

- Locate salt-stressed white pine (*Pinus strobus* L.) along streets and roadways

- Identify azaleas that were stressed from chronic under-watering by automatic sprinkler systems in a commercial greenhouse

- Locate anthracnose-infected dogwood trees (*Cornus florida* L.) in subdivision lawns and forests

- Locate nutrient-deficient and diseased patches in suburban lawns

When viewed through a yellow lens, very slight chlorosis in foliage is readily visible—lighter green in color than normal foliage. Necrotic foliage appears markedly lighter on individual plants and also in the general landscape.

In mixed forests, species differentiation by foliage color is most apparent early in the growing season just before and after completion of leaf expansion, and also late in the growing season just as leaves change color. Late autumn foliage differences in the eastern United States are striking.

A medium-strength yellow lens seems to give the most enhanced discriminating ability, but brown-tinted lenses also have some utility. Glasses without a strong top-to-bottom gradation may be preferred by some users.

The sunglasses that I have tried ranged from \$5 to \$60. Among the most effective glasses were those that block the blue and haze that come from the scattering of blue light under hazey conditions. The inexpensive (\$5) variety of these blue-blocking glasses was as effective as the expensive one.

Vision tests have shown that I have normal color vision.

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